

Remarks

Allowable subject matter

Applicants thank the Examiner for the indication that claim 11 contains allowable subject matter. As Applicants believe that the pending claims are allowable, claim 11 has not been placed in independent form.

Amendments

Claims 1 and 12 have been amended to specify that one modulates a sample period based on the relative speed, support for this amendment being found in the specification at, among other locations, the abstract. Claim 2 has been canceled in view of the clarification of claim 1, and those claims dependent on claim 2 have been amended to change their dependency to claim 1. Claim 13 has been amended to include a control element, support for this amendment being found in the abstract, among other locations, of the specification. Finally, new claim 21 has been added, which new claim finds support in the pending claims, as well as the abstract, among other locations. As the amendments introduce no new matter to the application, their entry by the Examiner is respectfully requested.

Interview

The Examiner is thanked for the helpful interview held on February 25, 2004. During the interview, the above amendments were discussed, and the Examiner indicated that the above amendments would overcome the art of record.

The claimed invention

The present invention is directed to a method and apparatus for accurately scanning a surface. According to the invention, the sample period is modulated based on a detected signal to control data acquisition timing, e.g., to allow one to achieve a constant scan length per sample.

The cited art

Peled describes a printing system that includes optical imaging onto a photoconductive drum. An adjustable mirror is provided that alters the position of the image reflected onto the drum in response to changes in speed of drum rotation, in order to improve image registration. Peled claims an apparatus for optical imaging onto a moving surface, but the only disclosed use for the imaging system is to improve image registration on a photoconductive drum, such as is commonly used in laser printers and copiers.

Rejections over Peled

Claims 1-10 and 12-21 stand rejected under 35 U.S.C. 103(a) as obvious in view of Peled.

The system of Peled functions in a substantially different way than claimed in the present application. Peled adjusts the mirror to position the laser beam so that the beam will move at a constant velocity relative to the drum, even if the drum velocity varies. See, e.g., column 4, lines 19-24.

In contrast, the claimed system does not vary the position of the beam, but the **timing of the measurement of the surface**. If the sample is moving at a variable speed, the length of acquisition time for a sample period is varied, rather than attempting to adjust the position of the detector.

In addition, Peled does not disclose any type of detector or detection, as recited in all claims. In particular, the claims recite that the sample period is modulated based on the relative speed. Since Peled does not teach or even suggest data acquisition, it cannot anticipate or render obvious any of the pending claims because it does not teach or suggest a sample period, much less one that is modulated based on relative speed.

Since Peled does not vary the sample period, but merely beam position, it cannot be considered to anticipate or to render obvious any of the pending claims.

Reconsideration and withdrawal of the rejections is therefore respectfully requested.

Finally, Claims 1-20 have been rejected under the judicially created doctrine of obviousness type double patenting over Claims 1-15 of U.S. Patent No. 6,371,370. In view of the enclosed Terminal Disclaimer, this rejection may be withdrawn.

CONCLUSION

In view of the above amendments and remarks, this application is considered to be in good and proper form for allowance and the Examiner is respectfully requested to pass this application to issuance.

If the Examiner finds that a telephone conference would expedite the prosecution of this application, please telephone the undersigned at the number provided. The Commissioner is hereby authorized to charge any underpayment of fees associated with this communication, including any necessary fees for extensions of time, or credit any overpayment to Deposit Account No. 50-1078.

Respectfully submitted,
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